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ABSTRACT

Word processors can enhance the reading and writing skills of underprepared college students in a special course combining reading and writing. Word processors may serve such a course in many ways: (1) storing and retrieving students' own unpublished resource materials; (2) moving large blocks of writing at the flick of a finger; (3) serving as reading and writing tutors; (4) checking spelling and grammar; (5) coaching speed reading; (6) testing and evaluating; and (7) record keeping. Computer-aided instruction provides an opportunity for instructors of underprepared students to view students mastering the demands of a new skill, as well as a chance for students themselves, their classmates, or instructors to intervene in the writing process. The high visibility of the computer screen has made writing a more overt operation capable of study by the average classroom teacher. The computer is an excellent tool for educational researchers, a tool whose full capacity has not yet been tapped. (Author/RS)

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TRIAL AND ERROR: THE USE OF COMPUTER-AIDED INSTRUCTION FOR BASIC READERS AND WRITERS

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Fourth Annual Conference on Rhetoric and Composition

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This paper explores the way word processors can enhance the reading and writing skills of underprepared college students in a special course combining reading and writing. Word processors may serve such a course in many ways: 1) storing and retrieving students' own unpublished resource materials; 2) recording words at a rapid rate and moving large blocks of writing at the flick of a finger; 3) providing filing systems from which notes may be quickly reorganized and small errors may be quickly edited; 4) serving as reading and writing tutors 5) checking spelling and grammar; 6) coaching speed reading; 7) testing and evaluating; 8) record keeping.

Computer learning for developmental students involves periods of great anxiety and uncertainty until they have mastered a series of complex instructions and operations. It provides an opportunity for their instructors to view students mastering the demands of a new skill, and a chance for students themselves, their classmates or instructors to intervene in the writing process when it can be most useful to them. Computers give students special opportunities for temporarily ignoring error, for experimenting with all phases of writing, for eliminating writer's block through the use of special on-screen prewriting programs, for improving spelling and grammar with the aid of checkers and vocabulary builders and for creating multiple copies of their own work as reading material for class use in small and large discussion groups.

While all these observations were possible for the instructor working one-on-one with students in reading or writing laboratories, the high visibility of the computer screen has made writing a more overt operation capable of study by the average classroom (or in this case laborator) teacher. The computer is therefore an excellent tool for educational researchers, a tool whose full capacity we have not yet tapped.

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Developmental students often face particular difficulties in meeting the demands of both college reading and writing courses. Moreover, their repeated academic failures contribute to their negative attitude toward learning in general. In attempts to assist such students, colleges frequently enroll them in separate reading and writing courses.

My experiences, and those of the majority of my colleagues, suggest that separate courses are both redundant and superficial. Such courses tend to stress isolated skills apart from a meaningful context. As result, they fail either to address the deeper structures or to emphasize the connections necessary for genuine learning. Furthermore they provide little incentive for reversing students' negative attitudes.

To address these problems, my colleagues and I have developed and taught a five -credit course in reading and writing using computer aid instruction. Based on our experiences, I want to make two major points in this article. First, reading and writing are related subjects and must be taught together. And second, computers provide a new and valuable incentive and aid in teaching a combined course.

The Rationale for a Joint Course

Let us consider the particular needs of developmental students as a rationale for this course. If we define writing as composition and reading as comprehension, from where (aside from their own immediate experience) do they discover the facts and feelings so necessary for their writing but by listening and reading? How too can they, as readers, verify their personal interpretations of their reading other than by speaking and writing?

John Dewey showed us that we learn by doing. Piaget demonstrated that knowledge is not simply transmitted so that we must reconstruct our own experience in order to learn. A reader better appreciates another writer by learning to write. A writer better appreciates the position of the reader by learning to read. To move from being totally subjective to objective, we need to realize that there are other perspectives or ways of viewing the same experience. Such a realization comes from reading either published works or classmates' informal writings.

Why segregate the two into courses in creative writing and critical reading? We might just as well teach critical writing and creative reading. Both subjects require thought and feeling. Better still, combine them into a single

course which uses the computers as both a resource and tool for learning. In that way, students will be able to add another dimension to the literacy demands of both academia and the marketplace: computer literacy.

While disregarding media hype that suggests that computers are panaceas for all educational deficiencies of the past, I firmly believe they will retain an important place in tomorrow's classrooms and media laboratories. First let us consider the reactions of many humanities teacher to the use of computers in their classes. Oddly enough, many of those who will have to learn and teach computing are by nature inclined to be opposed to mechanized teaching or the use of "teaching machines" or, for that matter any instruments considered, cold, isolating, unfeeling, and basically dehumanizing. It may take some proselytizing by fellow humanities teachers to convert the unconverted or to encourage skeptics to at least experiment with computers as learning tools. Yet, it is just such skeptics to whom I would entrust such tools as they will, at least, be mindful of the place of social interaction in learning. Moreover, they will be cognizant of their students' need to apply not only thought, but feeling, to their learning.

Students' Attitudes Towards Computers

Now let us consider students' attitudes towards the use of

computers. Students are generally less resistant than their instructors to the idea of using computers in learning. However, since they tend to be taken in by advertisements that portray computers as instruments of instant gratification and success, they may become quickly dissillusioned when their computers "fail to deliver." Still, computers are present day status symbols no less than trips to Europe, fancy cars and coats. Students, therefore, are ready gluttons for costly computer time. They are readier still to make their monitors respond to their desires as they themselves were dominated by television monitors. Computers are, therefore, useful aids for motivating student learning.

Particular Problems of Developmental Students

Developmental readers and writers are those who have been specially selected for demonstrating deficiencies and needing intensive instruction. Such students, in their and their teachers' judgement, have demonstrated an inadequate command of the English language through limited and faulty composition and comprehension. Most arrive in class with a view of their instructors as weeders of their unkempt and underwatered verbal gardens rather than as seeders of watered soil. These students are keenly aware of the fact that in writing about what they are experiencing or reading, they are engaging in an extremely revealing act. Such

students tend to suffer from writers' block; they simply fail to produce much or even any writing, and what little writing they do is slow and painful. Even their handwriting is poor and uncertain. Often they write in block letters, a habit which results in a failure to distinguish sentences and between common and proper nouns for want of capital letters. As high school students, they were given little or no opportunity for extensive writing. Instead, they filled in blanks or checked off numbers on multiple choice sheets.

For them, writing and reading are chores punishable by multiple revisions and editions. They tend to value correctness over communication and mechanics over meaning. These limited English speakers feel incapable of meeting such demands. Since they have little basis for making the "correct" choices they feel impelled to make, (as many are children of immigrants, immigrants themselves or users of black English vernacular) they are blocked.

The Benefits of Computer-Aided Instruction

By exploring the demands of reading and writing and comparing such demands with the potential uses for computers in education, we can begin to develop workable programs that maintain the primacy of learning over the mastery of new technology. The demands include: the need to understand the

author's or reader's purpose in writing/reading, the nature of the audience to whom the text is directed, the nature and level of specific details used to support the author's thesis, the author's or reader's attitude towards the subject of the text, the method of textual organization, the tone of the text and the denotative or connotative meanings of words.

Computer Capabilities

Computers serve multiple functions for reading and writing students who need to collect, discover and generate ideas. They may be used as 1) centers or libraries for easy retrieval of their own unpublished resource materials and other published programs; 2) word processors capable of recording words at a rapid rate and of moving large blocks of writing at the flick of a finger; 3) filing systems from which notes may be quickly reorganized and small errors may be quickly edited; 4) reading and writing tutors; 5) spelling and grammar checkers; 6) speed reading coaches; 7) testers and evaluators; 8) record keepers.

For example, as centers or libraries, computers may enables students and instructors to keep a permanent record of their writing on disks, to combine several to form lengthy papers, to produce multiple copies or even to have their work critiqued or edited by instructors who have their

own computers at home. (An entire semesters' worth of student papers may fit into one small disk box.)

As rapid word processors capable of moving or replacing words, phrases and large blocks of texts, computers may serve as excellent tools for demonstrating and using the revision process, providing students are carefully instructed in the steps needed for each move. An English as a Second Language student, for example, may note the pattern of his errors when his instructor circles his incorrect verbs, and that student, open text in hand, concentrates on simply replacing those verbs rather than rewriting the entire text. Or an entire class may have a former student's essay placed on their disks so that it can improve the parallel structure or change passive to active voice. Then it may select the best revision from each group.

As filing systems, students may employ computers to brainstorm ideas for their papers or to take notes from their reading in outline form while changing headings or subheadings as needed. Slotted outlines, graphs and charts may be used to assist students in organizing ideas.

Reading and writing tutorials may provide students with on disk reading materials, related questions, branching, coaching, simplified versions of original passages, visual

displays of materials, vocabulary checks, speed reading, optical scanning, testing, score keeping and evaluation of the strategies employed. Prewriting programs provide students with guiding questions, such as those regarding purpose, audience and tone, a printout of their responses to each question and an opportunity for freewriting before producing a final draft.

Spelling and grammar checkers may be used to highlight and keep a record of possible errors, so students may check their work and learn from their errors.

Improved Social Interaction

The high degree of social interaction among our students has come as a surprise to both students and faculty participants. Students show a greater ability to recall the names of fellow students in their computer assisted classes than in their other classes. They consider those reading and writing teachers who used computer aid instruction as friendlier than do students in a non-computer assisted control group. Moreover, faculty members note a significant rise in laboratory students' willingness to assist others, prompting one dean to suggest that, much to his surprise, the atmosphere of the lab class he had observed more closely resembled that of a one room schoolhouse than any other classes he had seen.

A Comparison of Writing Results

Students who become proficient at word processing write more than students who use handwriting. They also revise and edit their drafts more readily providing they are taught revision as a process, one which includes block and phrase moves. While those who use handwriting are often ashamed of their chicken scratches or have difficulty reading their own or their classmates' writing, students using computers willingly read and critique their fellow students' video output while offering their own suggestions or criticism. Students then see themselves as craftspersons, as potential authors capable of producing exacting replicas of the printed page worthy of effort. At the same time, they see video outputs as more tentative and therefore less intimidating than typewritten pages. Consequently, they rarely feel as compelled to begin with a handwritten first draft.

The process approach to writing has its counterpart in reading. If, at this stage of development as writers, students are introduced to the ideas and styles of famous authors, they may unconsciously begin imitating them or expanding ideas or images from their reading. It is important that these authors be read and responded to with

the same consideration as other students in the class. Students need not be told to either admire or emulate such writers, for many are already overwhelmed by authority figures in their lives. However, as writers themselves they may begin to appreciate some of the techniques these artists have mastered.

Plans for Course Revisions

First we need computer programs and manuals that do not require lengthy preparation time before students can feel proficient at word processing. While we previosly took several class periods to introduce procedures through on-screen tutorials, we now expect students to be able to function independently by the second double period session using simpler writing programs. We have recently purchased computers that we hope will be more durable, with laser printers that should not break down frequently as a result of overheating from continuous use.

For the first time, next semester, we are planning to involve not only trained laboratory assistants but to employ trained student tutors for students requiring extra assistance reading and writing. We hope that the availability of student tutors at our computer laboratory will encourage students to spend their free hours developing

their abilities and reinforcing their skills. We are developing more precise methods or recording evidence of students' composing processes, methods that should greatly assist future researchers. Moreover we plan to involve faculty both in creating instructional material and in cooperating with faculty and student teams involved in creating computer software since much of that is available is inappropriate for our student population, a population that lacks confidence in its ability to succeed in college. Some plans include preparing sentence combining and sentence order revision exercises, creating summaries and developing vocabulary games using affixes. Let us now note some more general implications.

General Implications

In many ways our role as humanities teachers using computers is to reverse an entire set of values and an entire process. We may help our students to develop trust, trust that it is alright to make mistakes, and to value their own ideas and feelings as well as those of their instructors, their classmates and the authors of their texts.

When we can help students move away from believing there is a right and a wrong way to think, read, write or even

compute and give them some room for error and experimentation, we are well on the way toward enhancing their development as independent learners. We can help by encouraging our students' informal journal responses which relate their own life experiences to their understanding of their readings, by creating a workshop atmosphere in class, by taking their process seriously, by appreciating their products and by valuing good reading and writing wherever it can be found. We can allow ourselves to be skeptics or believers in the world of technology through both our own and our students' trials and errors, so that they too may become skeptics or believers of the traditions of our past.

In conclusion, students are used to thinking of the power of the printed page and of the media. They are now drawn by the magic of the computer. By combining the power of the computer with the magic of the media, we may attract and inspire them in two of the most important aspects of their college learning, reading and writing.

References

Dewey, J. Experience and education. London: Collier Books-Macmillan, 1938.

Piaget, J. The language and thought of the child (M. Gabain, trans.). New York: New American Library, 1974.